

Dangerous Trenches

By: **Richard J. Mee**, Chief
Construction Safety Division

Recently, while reviewing construction fatality statistics, I realized there have been eighty-eight of them. Eighty-eight fathers, sons, grandfathers, brothers, uncles, grandchildren, and friends. Eighty-eight people, not just statistical representations but real people, who no longer live among us. Eighty-eight people who left home in the morning for work never to return alive.



TRENCHING HAZARD--This is an example of extremely dangerous work conditions and a violation of MIOSHA standards.

Now imagine, for a moment, eighty-eight people. Imagine about two busloads of people or about three high school classrooms with every seat filled. Then, imagine them all dead.

Yes, MIOSHA records show that eighty-eight Michigan construction workers have died in excavation cave-in incidents just since the Construction Safety Division has been keeping records. This number, of course, does not include the hundreds or thousands who died before we started keeping records. It does not include the thousands or tens-of-thousands who died in states other than Michigan. Neither does it include the tens-of-thousands or hundreds-of-thousands who were injured,

many seriously injured or disabled, in cave-in incidents.

Recent Upturn in Trenching Fatalities

Last year, in 1999, four more workers perished in Michigan trench cave-ins. This tragic upturn in trench deaths came during a period of reduced excavation accidents. In the four previous years, 1995 through 1998, one cave-in death each year was recorded. Statistics reveal a long decline in cave-in deaths with the last several years among the lowest average period.

Dangerous Work?

Excavation and trenching work have proven to be very dangerous. Removing soil to create a trench or other cavity disrupts an equilibrium created by nature during hundreds or thousands of years over the surface of the earth. Nature loves an equilibrium and will exert powerful forces to return the earth to that condition. Sometimes, natural forces work slowly and man-made scars in the landscape heal gradually over months or years. All too often, how-

ever, natural forces begin the healing process in bursts of great force that have no respect for the unfortunate worker who gets in the way.

These bursts of great force are the cave-ins that kill, maim, and injure workers. Most soils weigh over 100 pounds per cubic foot, so it doesn't take a very large chunk of earth falling off the side of a trench to have the effect of a moving automobile striking a person. A slab of trench side only one foot thick, six feet long, and four feet high can weigh as much as a typical mid-size car. Few cave-in deaths are caused by suffocation; most victims are crushed by the weight of the soil chunks.

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Serving Michigan . . . Serving You
Consumer and Industry Services

From the Bureau Director's Desk

*By: Douglas R. Earle, Director
Bureau of Safety & Regulation*



Innovative Partnership with Plastics Industry Eliminates Economic Hardship and Protects Worker Safety

I would like to take this opportunity to share with our readers a dynamic example of a private-sector and government partnership in Michigan which is protecting workers and at the same time increasing the economic vitality of one of Michigan's leading industries.

MIOSHA's mission is: To help assure the safety and health of Michigan workers. In this role, MIOSHA has formed strategic partnerships with committed organizations that want to work with MIOSHA to reduce workplace accidents, injuries and illnesses—while at the same time promulgating “common sense” safety and health rules and regulations.

New technologies in the manufacturing arena demand innovative strategies to ensure a safe and healthy work environment. In our most recent partnership, MIOSHA worked with the plastics industry to develop an amendment to the Plastics Standard, Part 62, that would provide a safe alternative to lockout procedures.

In 1993, federal OSHA (Occupational Safety and Health Administration) promulgated a new lockout/tagout (LO/TO) standard. The standard was adopted by reference by MIOSHA in 1994. Lockout/tagout refers to the process of cutting off the energy sources so that machinery remains inoperative during servicing or maintenance. This standard is a vital regulation that helps prevent countless fatalities and accidents each year.

When the standard was developed by OSHA, the plastics industry did not recognize the economic impact it would have on certain production operations, such as mold changes. It was only after the rule was enforced, that the industry determined the new standard would impact the economic viability of plastics manufacturers, as well as present a serious risk to product quality. The new standard increased the time needed to change a mold, e.g., from 20 minutes to two hours.

Because of the burdensome nature of the LO/TO standard in the plastics industry, it was found that across the nation, many companies were ignoring the new standard during mold changes. In many cases, the cooling of the molten resin during the lockout also effected the integrity of the resin. Because most molding machines are controlled by computers today, the lockout also had the potential to damage the machines themselves.

What was alarming to MIOSHA, was that because the industry apparently was not complying with the lockout standard, workers were being placed in potentially dangerous situations. MIOSHA decided it was imperative to find a solution to the plastics industry problems, while protecting Michigan workers.

Timothy Koury, Corporate Safety Director, Blue Water Plastics, was one of the leaders in a national effort to seek relief from federal OSHA. Koury asked MIOSHA and The Society of the Plastics Industry (SPI), Inc., to help address the situation with the new LO/TO standard. MIOSHA representatives and Koury approached the injection

molding machine manufacturers with the problem, however, concerns over liability derailed this effort.

MIOSHA then facilitated a meeting with federal OSHA and MIOSHA staff, SPI staff, and several Michigan plastics industry representatives, to address the key issues presented by the new LO/TO standard. After studying the issue, OSHA determined that to adapt the standard to allow for mold changes could compromise the standard applicability to processes in other industries. Thus efforts to achieve a national resolution to the problem were not successful.

As a member appointed by Governor Engler to the MIOSHA General Industry Safety Standards Commission, Koury was aware that MIOSHA has a Plastics Standard, Part 62, which OSHA does not. This standard prescribes certain safety requirements for Horizontal Injection Molding Machines (HIMM) and related operations. Koury, SPI, and other Michigan plastics manufacturers and union members, then approached MIOSHA to see if the problem could be addressed by amending the plastics standard. MIOSHA reconvened the Part 62 Advisory Committee to explore the possibility of amending the standard.

This public/private-sector partnership was able to find a solution without diminishing the integrity of the applicability of the LO/TO standard. In the 25 years since Michigan first promulgated Part 62, plastics machinery has grown increasingly sophisticated. The mold machine is guarded by a barrier guard with interlocked gates on the front and rear. The Committee recommended an amendment to Part 62 utilizing the interlock system, that would allow a hasp to hold the interlock gates open and therefore eliminate the danger of unintentionally starting the machine.

The MIOSHA General Industry Safety Standards Commission reviewed the recommendation of the committee, held public hearings, and then amended Part 62. The Amendment was filed with the Secretary of State January 24, 2000, and became effective February 8, 2000.

The U.S. plastics industry employs 1.3 million workers and provides \$274 billion in annual shipments. The Society of the Plastics Industry (SPI) is the 1,800-member trade association representing the fourth-largest manufacturing industry in the U.S. Plastics shipments in Michigan totaled \$19.4 billion in 1996. Employment in the Michigan plastics industry totaled 95,000 in 1996, ranking Michigan third in plastics production in the nation, behind only California and Ohio.

We are extremely proud that this proactive partnership was able to address the concerns of the industry without compromising worker safety. MIOSHA's goal from the start was to determine the extent of the hazard, make sure workers were protected, and develop a solution that would meet the needs of employees, the industry and government.

Douglas R Earle

Threat Assessment

Threat Assessment of the Potentially Dangerous Individual--Part Two in our Series on Workplace Violence

By: Marilyn Knight, MSW, President
Incident Management Team

Most employers are in the business of providing either goods or services. Few are prepared to conduct a risk assessment of individuals who make threats against their employees, customers or assets. That such tasks have now entered the domain of the workplace is a sad commentary on the level of violence in today's workplaces and schools. Yet, recent litigation stemming from assaults or violent incidents in the workplace, coupled with the employer's desire to promote a safe work environment for customers, employees and contractors, have placed the process of risk assessment on the radar screens of today's workplaces.

The major issue in threat assessment is differentiating between the difficult or troubled individual versus the individual who poses a real threat. While the threat of violence may come from many different sources, for the purposes of this article we will focus on the employee as the source of potential violence. Each situation must be handled on a case by case basis, and there are other issues that will need to be considered when the source is a customer, client, contractor, vendor or domestic partner of an employee. In order to maintain a safe work environment, it is crucial for employers to develop early identification and intervention strategies with employees who make threats, so as to either have an opportunity to help those employees help themselves, or to separate them from the work environment before they commit harm.

It is also necessary to assess the credibility of a threat in terms of "Does the individual have the means, motivation, plan and resources to implement the threat?" One major difficulty inherent in assessing risk is that many people who make threats, do not necessarily pose threats while others who make threats do, indeed, eventually carry them out.

Moreover, there are many prohibitions on types of information that employers may collect which might otherwise furnish additional helpful information to accurately assess an employee's level of stress and potential risk for violence, (e.g. psychiatric records, substance abuse history, non-workplace behaviors, genetic history, personal problems, physical health, or financial problems). In addition, portions of the

Fair Credit Reporting Act, limit the information the employer can collect without previous notification to and acknowledgment from the employee, that certain such types of investigations are being conducted regarding the employee's background.

Warning Signs of Potential Violence

In order to conduct a behavioral risk assessment, it is necessary to compile accurate, documented, current and pertinent information about behaviors which indicate a potential to do harm. No one can accurately predict violence, therefore it is necessary to look for those behaviors which people who act violently often demonstrate. The more such at-risk behaviors--early warning signs--the individual has demonstrated, the higher the risk potential.

Following are several of the indicators that have been identified by the Federal Bureau of Investigation's National Center for the Analysis of Violent Crime, Profiling and Behavioral Assessment Unit in its analysis of past incidents of workplace violence.

- Direct or veiled threats of harm;
- Intimidating, belligerent, harassing, bullying, or other inappropriate and aggressive behavior;
- Numerous conflicts with supervisors and other employees;
- Bringing a weapon to the workplace, brandishing a weapon in the workplace, making inappropriate references to guns, or fascination with weapons;
- Statements showing fascination with incidents of workplace violence, statements indicating approval of the use of violence to resolve a problem, or statements indicating identification with perpetrators of workplace homicides;
- Statements indicating desperation (over family, financial, and other personal problems) to the point of suicide;
- Drug/alcohol abuse; and
- Extreme changes in behavior.

"Each of these behaviors is a clear sign that something is wrong. **None of them should be ignored.** By identifying the problem and dealing with it appropriately, managers may be able to



A simulation of violent behavior in a workplace setting.

prevent violence from happening... Some behaviors require immediate police or security involvement, others constitute actionable misconduct and require disciplinary action." These indicators as well as additional data may be found in *Dealing with Workplace Violence: A Guide for Agency Planners*. U.S. Office of Personnel Management. Document OWR-09, p 17-18.

The Threat Verification Process

The next issue is how does an employer obtain reports of such behaviors in a timely manner, and how can the employer verify the accuracy of such reports. Such verification is crucial, especially if they will be used as a basis for employee discipline, referral to counseling, or termination. Without a system for employees to report behaviors which suggest risk, the employer can miss opportunities for early intervention. In addition, without a systematic means to investigate and to validate behaviors which may suggest the presence of a threat, the employer may find that they do not have sufficient documentation to defend a wrongful discharge case.

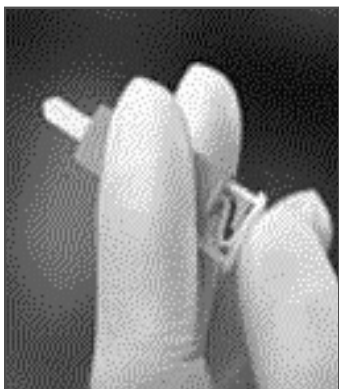
Once a report of an employee threat is brought to the attention of management, it is suggested that a log be established to document that the threat was taken seriously and that an investigation of the threatening individual was initiated. The log should note, what information was received, the person making the threat, the target of the threat, the date of the incident, any witnesses, and who initiated the report. Reference should be made of the person given the responsibility to investigate the threat (an individual or a "threat response team"), what protective responses were considered given the per-

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Preventing Needlestick Injuries

MIOSHA continues to help minimize serious health risks faced by healthcare workers

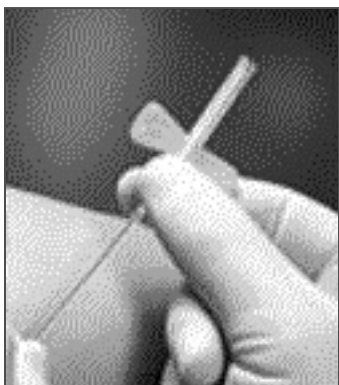
*By: Nella Davis-Ray
OHD Division*



After use, white activator button is pushed while lancet is still against puncture site. When button is activated, the lancet instantly retracts into the plastic housing.



After blood is drawn, attached hinged shield is pushed over the needle and locked in place. Note: This picture represents the highest risk exposure, hollow bore needle contaminated with blood.



Blood collection set with needle retracted into plastic shield and locked in place.

In 1991 federal OSHA (Occupational Safety and Health Administration) finalized the first Bloodborne Pathogens (BBP) Standard (29CFR1910.1030), as a result of healthcare workers petitioning OSHA to address the risk posed by exposure to blood and other potentially infectious materials. The compliance directive detailing enforcement procedures for the standard was published on March 6, 1992, the effective date of the standard. In Michigan, an occupational health standard essentially identical to the OSHA standard became effective on July 15, 1993, the Bloodborne Infectious Diseases (BID) standard (R325.70001 et seq.).

On November 5, 1999, OSHA issued a revised BBP Compliance Instruction, CPL 2-2.44D. The revised instruction reflects seven years of changes in technology, treatments, and interpretations. The revised directive reminds employers that using readily-available technology in their safety and health programs will help reduce needlesticks and other sharps injuries. The directive highlights basic work practices, personal protective equipment and administrative controls. The revised instruction also re-emphasizes the performance-based nature of the standard's requirements.

The latest compliance directive helps inspectors by creating clear and consistent enforcement procedures for rules which have been in place for years. MIOSHA is currently working on revising its BID compliance directive, Michigan Occupational Health Program Directive No. 94-2, to ensure that our compliance efforts are as effective as federal OSHA's.

Hepatitis B

While the fear of contracting HIV (human immunodeficiency virus) may have driven the early efforts, we learned that Hepatitis B is the major infectious hazard for healthcare workers. One to two hundred healthcare workers have died annually in the past decade from the effects of chronic HBV infection, active hepatitis, cirrhosis and liver cancer. In 1993 nationwide, 1,450 healthcare workers were infected with hepatitis B through exposure to blood and other potentially infectious materials. In 1995, an estimated 800 healthcare workers became infected with HBV (CDC unpublished data). This is a 95 percent decrease from the 17,000 infections estimated in 1983.

While national statistics for HBV infection rates have significantly decreased in the past 10 years, needlestick injuries remain high. An estimated 600,000 needlestick injuries occur nationally each year. Both federal and state standards require that engineering controls be used in combination with work practice controls to minimize or eliminate employee exposure to blood and other potentially infectious material. Retractable

needles, needleless IV systems, and needles with protective sheaths are examples of engineering controls designed to prevent percutaneous injuries.

Safer Medical Devices

The Food and Drug Administration has approved more than 250 devices designed to prevent percutaneous injuries and exposures to bloodborne pathogens in healthcare settings. The Food and Drug Administration has suggested that a safety feature designed to protect healthcare workers should:

- Provide a barrier between the hands and the needle after use;
- Allow or require the worker's hands to remain behind the needle at all times;
- Be an integral part of the device and not an accessory;
- Be in effect before disassembly and remain in effect after disposal to protect downstream workers; and
- Be simple and self evident to operate and require little or no training to use effectively.

Though manufacturers of safer medical devices can show an increase in sales, healthcare employers have generally been slow to proactively eliminate the unnecessary use of needles and implement the use of devices with safety features. Selection and implementation issues include: the device's ability to meet the facility's needs, ready availability of a variety of sizes, impact of additional waste disposal and the need for device specific training for the user.

National Databases

Many types of needles and sharp devices contribute to injuries in healthcare personnel. There are two national databases that have been collecting information related to needlestick injuries. The Exposure Prevention Information Network (EPINet) is a surveillance system acquired by 1,500 healthcare facilities in the U.S. and Canada. EPINet has standardized incident report forms for sharp object injuries and other exposures to blood and body fluids, as well as software for compiling and analyzing the data.

Since 1992, the University of Virginia's International Health Care Worker Safety Center has gathered EPINet data on needlestick injuries from a small group of hospitals around the country. The results of their 1997 data analysis provide a useful picture of needlestick injuries.

- Participating hospitals reported an overall rate for sharp-object injuries of 27.0 per 100 occupied beds per year.
- Most exposure incidents occurred in patient rooms (37 percent).
- Nurses report the most frequent exposures (49.7 percent), while physicians rank second (12.6 percent).

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Safety in the Workplace: Trenching & Excavation

By: Tom Swindlehurst
SET Onsite Construction Consultant

As I'm writing this, spring is here and we're approaching the height of the construction season. There is no better time to prepare for trenching and excavation projects than right now.

In Michigan, employers and employees are subject to the MIOSHA Act. Trenching, excavating and related work, are covered by MIOSHA **Construction Safety Standards**; more particularly **Part 9 - Excavation, Trenching, and Shoring**, the scope of which reads as follows: This part pertains to the digging of excavations and trenches which an employee is required to enter and the supporting systems used on construction operations. Public Act 154 states that: An employer of one or more employees must provide a place of employment which is free from recognized hazards which can cause, or are likely to cause, death or serious physical harm to the employee.

Consider that in 1999, four fatal incidents and many serious accidents were reported in Michigan during trenching and excavation activities. It can clearly be seen that trenching and excavation work should be considered a hazardous activity, which requires safety planning and execution. The major causes of deaths and accidents under Part 9 are:

- Improperly shored and sloped trenches,
- Loads too near trenches,
- Shocks and vibrations,
- Improper or defective shoring material,
- Change in soil conditions, and
- Improper site and trench preparation.

Let me take this opportunity to help you who are involved with trenching and excavation projects to have a better understanding of: **Who, What, When, Where and Why** the Part 9 Standard would apply. I would also like to remind everyone that the standards are only minimum requirements, and that additional safety measures must be taken when hazards are identified.

Who

As to who, there are really four equally correct answers and many identifying factors for each. Because Michigan has a multi-employer worksite policy, the following employers must be able to identify and correct hazards found in trenching operations. Furthermore, these employers may be cited under this policy by the MIOSHA Construction Safety Division if they are not in compliance.

- 1) **The Exposing Employer.** The employer of the employees exposed to the hazard.
- 2) **The Creating Employer.** The employer that actually creates the hazard.
- 3) **The Controlling Employer.** The employer responsible through contract or actual practice for safety at the worksite, i.e., this employer has control and authority for insuring that

the hazardous condition is corrected.

4) **The Correcting Employer.** The employer having the responsibility for correcting and installing safety devices.

What

This basically takes care of the who, so let's talk about what is required to maintain safety in excavation projects. The most vital element is the ability to identify potential problems. In my years as a safety officer, before I joined the consultation staff for MIOSHA, I remember many instances where incidents had occurred and I would hear similar comments.

Such as: "It was only going to take a couple of minutes."

To which I would reply: "It only takes a couple of seconds for a trench side to collapse!"

Or: "I've been doing it this way for 20 years."

To which I would reply: "You've been lucky for 20 years!"

What can be done so that hazard identification becomes a skill you possess? The key to becoming able to identify hazards is: **Comprehensive Training**. I feel that a review of all trenching "incidents" should be included in a training program.

1) **Training** in the requirements of MIOSHA Construction Standards, Part 9, and the use of protective systems, including trench boxes, shoring and sheeting.

2) **Training** in the ability to recognize warning signs that precede trench collapse.

3) **Training** in the ability to recognize conditions on the site that would enhance the probability of a trench collapse.

4) **Training** in soil type recognition. Because no two trenches or even any two sections of a trench are the same, recognizing and evaluating soil conditions must be ongoing and relentless to avoid hazardous situations.

5) **Training** must be presented to all those concerned: Top man, pipe layer, operator, supervisor, and inspector. Without all concerned being acutely aware of potential hazards, the results can be deadly.

When

Constantly. If not, you could miss a change in conditions with disastrous results.

Where

Every excavation is unique, so every trench site needs a competent person in charge and everyone involved must be able to identify all hazards that are possible when you

disturb soil by means of excavation. Remember, you're creating an unnatural condition which is constantly trying to return to its natural condition.

Why

Because of the possibility of fatalities and severe injuries involved with trenching! Considering that a cubic foot of soil weighs approximately 114 pounds, and a cubic yard can weigh as much as a car, it doesn't take much imagination to see what the results of a trench side collapse, even three feet in depth, could be.

The danger is increased when you add in the location of waste and storm sewer trenching sites i.e., right of ways to streets and highways, and the vibration of traffic and construction equipment. Let's not forget that when repairs are made to existing lines, the principal soil will have been previously disturbed. This presents a situation where there is very little if any soil cohesiveness.

Conclusion

In conclusion, I have repeatedly emphasized the need to train. I feel training is the key which serves as the backbone for competence in trenching safety. An effective trenching safety program should include employee training on the following topics: Other structures involved; Soil type identification; Safe access and egress into trenches; MIOSHA Regulations, Part 9, Trenching, Excavation, and Shoring; Proper use of trench boxes, sheeting and shoring techniques; Mechanics of a trench collapse; Hazardous atmospheres and testing; Machine use in excavation and lifting; the Effects of water and weather; Inspection techniques; Clay soils are the most dangerous; All soils are heterogeneous; generally, Soil color is not a significant factor; and Every trench is different.

And finally, **every trench is an unnatural condition and will collapse. It is just a matter of when.** ■



TRENCHING HAZARD--This is an example of extremely dangerous work conditions and a violation of MIOSHA standards.

MRBA Partnering with MIOSHA: *The Future is Now*

*BY: Michael L. Eckert, CSP, CSHM
Michigan Road Builders Association
Director of Safety Services*

“There is nothing more powerful than an idea whose time has come.” *Buckminster Fuller*

At the **Michigan Road Builders Association (MRBA)** Summer Conference in Traverse City on August 1, 1998, history was made for CIS, MIOSHA, MRBA, and every employer and worker in the State of Michigan. MRBA and MIOSHA officially became partners for workplace safety.

This agreement was formalized during a signing ceremony between MRBA President **Don Anderson** and Michigan Department of Consumer & Industry Services (CIS) Director **Kathleen Wilbur**. Also present were MIOSHA Director **Doug Earle**, MRBA Executive Director **Tony Milo**, President Elect **Tom Irwin**, AGC National President **Pete Wert**, and myself. MIOSHA Construction Division Chief **Richard Mee**, who was instrumental in the development of the agreement, was unable to attend the signing ceremony.

There was a time when the thought of cooperation between a government regulatory agency and private industry would have added levity to any casual conversation or evoked strong editorial comment from contractors who are rarely shy to share their opinions. As is true with our business, MIOSHA is also evolving into a new organization, hungry to seek new ways to save lives and prevent injuries while improving relations with key stakeholders

ultimately helping to accomplish this task.

This was very evident during MIOSHA's Future Search strategic planning conference in July of 1998. Partnering was an underlying theme throughout the conference. Government officials, employers, consultants, labor organizations, and other participants all agreed that new partnerships must be forged in order to truly have an effect on worker safety and health. Ironically, during the conference, MRBA and MIOSHA were just putting the finishing touches on our Partnering Charter in preparation for the signing ceremony.

So what does this agreement mean? First, it should be known that this is a formalization of an effort between MRBA and MIOSHA that has been active for some time. The agreement serves to further legitimize this existing relationship by identifying future opportunities for cooperation and communication. It also contains language to assure that efforts will be effectively measured and continually evaluated to facilitate forward progress.

Second, the agreement contains 10 specific goals that the partnership serves to achieve. These include information and resource sharing, publications exchange, stakeholder summits, data collection, joint information forums, conflict resolution, road builder specific training programs, and fostering a climate in which

safety is promoted as a good business practice in a fair, consistent, understandable, ethical, and progressive manner which assures a level playing field for all contractors and sub-contractors alike.

An annual review meeting, as required by our partnership, was held in October of 1999. This meeting was attended by key MRBA, MIOSHA, and CIS officials and was an excellent opportunity to measure and share our progress and set goals for the future. All parties present then repledged their commitment to the partnering concept by signing a partnering renewal document.

Finally, the non-measurable impact of having a positive working relationship with MIOSHA cannot be underestimated. Contractors must realize that MIOSHA has a Public Act that they are legally obligated to enforce. In turn, MIOSHA must realize that contractors are good business people who know of the moral, practical, and financial obligation to provide a safe work environment. Our goal is the same and we must embrace opportunities to share expertise, occasionally disagree but effectively resolve conflict, and to proactively encourage safety in new and innovative ways that will have a lasting effect.

An idea's time has indeed arrived. We must continually roll up our sleeves and get to work to achieve success. MRBA dedicates our MIOSHA partnership to the memory of all workers who have lost their lives while at work in our sincere hope of preventing similar occurrences in the future.



Road construction workers—hard at work building Michigan's roads.



BSR Director Doug Earle, 1998 MRBA President Don Anderson, CIS Director Kathy Wilbur, MRBA Executive Vice-President Tony Milo, MRBA Director of Safety Services Mike Eckert, AGC 1998 National President Pete Wert, and 1999 MRBA President Tom Irwin.

The Bottom Line

Workplace Safety and Health Makes Good Business Sense

ITT Industries Oscoda Plant

ITT Industries is a global industrial manufacturing company with 1998 sales of \$4.5 billion and employing nearly 33,000 people worldwide. ITT is the largest supplier of pumps and produces other systems and services to move and control fluids. The company is a leading supplier of sophisticated military defense systems, and provides services to a broad range of government agencies. They are also a leading supplier of products used in telecommunications, computing, aerospace, and network services.

The ITT Oscoda Plant

The Oscoda Plant is one of 19 ITT Fluid Handling Systems facilities worldwide which manufacture fluid-carrying systems for transportation applications. Established in 1983, it today employs approximately 527 hourly and 58 salary employees, with 1999 sales of \$84 million. They manufacture a comprehensive range of durable, dependable fluid-carrying systems and components including: plastic fuel lines, monowall and multilayer; crossover tubes; fuel feed and return vapor lines; fuel feed and return vapor and brake bundle assemblies. Their core competency is extrusion, generating 68 million feet of plastic tubing annually. Their automotive clients include: General Motors, Saturn, Ford, and DaimlerChrysler.

The ITT Oscoda Plant is QS 9000 certified and their QS 9000 mission statement reads: Customer satisfaction through continuous improvement, with the end result of zero defects. Synchronous manufacturing is utilized to provide the most efficient production methods which results in the maximum product produced at the lowest possible cost.

Employee Commitment

Employee involvement is a key part of the Oscoda Plant's success. Every employee is expected to commit to the company's quality goals in the performance of their daily tasks, and are provided with the company support necessary to reach these goals. Employee training is a key component to reaching their goal of product quality.

Safety and health training for all employees is integrated into their overall training activities, and covers the following areas: basic safety training, right-to-know training, fire safety, hearing protection, CPR and first aid training, bloodborne pathogens and exposure control, ergonomics training, back safety, eye care, carpal tunnel prevention, and machine guarding.

The ITT Oscoda Plant has set nine impressive goals in their 5-year Strategic Plan. Along with decreasing operating expenses, improving quality, and improving productivity, the Oscoda Plant is committed to operating an accident-free plant.

Safety & Health Commitment

"I nominated the Oscoda Plant because of the excellent house-keeping I've observed within the plant, as well as their commitment to doing things correctly and safely and their quality production efforts," said **SET Consultant Doug Kimmel**. According to Kimmel, they have an excellent incident rate of .08, which is significantly below the industry average. Making that rate even more impressive is the fact they have added many new workers, without increasing their incident rate. "They are outstanding because they are continually striving for excellence in safety and productivity," said Kimmel.

"Our employees are our most valued resource. That's why a safe workplace is important to all of us," said **Rick Kaiser, EHS/Facilities Manager**. Kaiser and **Dale Durance, Maintenance Manager**, worked with **SET Consultants Doug Kimmel** and **Bill Duncil**, and found their expertise to be very helpful. Kaiser requested assistance when modifying guards placed on flair machine units due to a potential pinch point. The guards caused ergonomics problems for the operators. They resolved the problem by using a center guide pin and eliminating the longer modified guards. This made the opening of the flair machines a 1/4 inch or less, eliminating the potential pinch point. The ITT Oscoda Plant plans on continuing to use SET Consultants to address other ergonomic issues. "By working together, we will continue to reduce our workforce ergonomic issues," said Kaiser.



SET Consultant Doug Kimmel, EHS/Facilities Manager Rick Kaiser, Maintenance Manager Dale Durance, Plant Manager Ralph Ives, and EHS Administrator Sue Straight (Front).

This column features successful Michigan companies that have established a comprehensive safety and health program which positively impacts their bottom line. An accident-free work environment is not achieved by good luck—but by good planning! Creating a safe and healthy workplace takes as much attention as any aspect of running a business. Some positive benefits include: less injuries and illnesses, lower workers' compensation costs, increased production, increased employee morale, and lower absenteeism.

Safety & Health Training for Plastic Mold Operators

By: Micshall Patrick
SET Consultant

General Industry Safety Standard Part 62 Plastic Molding, Rule 6211 requires that an employer shall provide training to all employees regarding the operating procedures, hazards and safeguards of any assigned job.

Safety and health training is an integral component of skill training for plastic mold operators. It is important that safety training be viewed as a function of the job and not as an extra responsibility. In other words, safety is not an added responsibility. Employees, when receiving skill training, safety and health training required by standard, or re-



Blue Water Plastics, Inc. - An employee is locking out an HIMM machine utilizing the new Part 62 Amendment.

fresher training, should be taught that performing the work safely is how to do the job.

Following are examples of skill-based safety and health training for plastic mold operators.

Automation Equipment

The operator understands tasks, automation machine guarding, safety interlocks, and other safeguards.

Barrel & Screw Safety

The operator understands improper troubleshooting techniques or inattention can cause sudden and accidental release of molten plastic while clearing plastic solids out of the barrel area of molding machines when the screw is in the retracted position.

Compressed Air Safety

The operator understands the use of low pressure air to clean equipment which could generate nuisance dust and fine particle irritants. The operator should never use compressed air to blow dust from his/her body.

Electrical Safety

The operator has the ability to recognize fundamentals of electrical safety and de-energization of equipment for removal/replacement of fuses, proper detecting electrical faults in equipment, resetting breakers in granulators, chillers, molding machines, etc. Defined limits of troubleshooting and any prohibited work practices (e.g. shortcuts) should be listed.

Emergency Response

The operator understands how to respond to fire and tornado emergencies.

Ergonomics

The operator understands the risk factors and importance of proper body mechanics.

Flammable Liquids Orientation

The operator understands the use of hand propane torches to remove stuck parts, as well as correct use and storage of flammable solvents.

Forklift Training

The operator has been trained and permitted as required when using forklifts to lift and move molds.

Lockout/Tagout

The operator understands how to de-energize equipment using written lockout procedures.

Mold Cleaning & Storage

The operator understands the proper method for hanging up a mold during installation or removal using specific techniques. If the sling or eyebolt fasteners are stressed, they must be removed from service. Training is necessary to recognize defective slings.

Mold Cleaning & Storage

The operator understands the proper use of common mold cleaning aerosols containing methylene chloride, exposure limits, use of exhaust hood areas, and local and general ventilation.

Personal Protective Equipment

The operator uses properly the personal protective equipment (PPE) provided, e.g. safety glasses with sideshields, gloves, chemical gloves, earplugs, ear muffs, etc.

Polymer Safety Review

The operator understands certain polymers may require an assessment for formaldehyde. Some families of polymers may exclude formaldehyde or other vapors when overheated during processing.

Right-to-Know

The operator has been trained in hazardous chemicals use, material safety data sheets, and measures to prevent overexposure.

Safe Lifting

The operator understands proper body mechanics. The operator should be taught and use lifting and carrying techniques and equipment parameters. Operator should also receive training on mechanical assists.

Spill Leak & Response

The operator is aware of, or a member of, the spill response team—which has been trained in hazard recognition and containment methods, and has the necessary personal protective equipment.

As you can see, there is a wide range of safety and health training necessary in the plastics industry. It is important to seek the guidance of qualified professionals when providing training. For more information on training opportunities, you can contact your workers' compensation insurance carrier, as well as private consultants for such assistance. You can also contact the MIOSHA Safety Education & Training Division at 517.322.1809 or the Occupational Health Division at 517.322.6690. MIOSHA consultation, education and training staff are located throughout Michigan and serve employers and employees in all 83 counties.



Blue Water Plastics, Inc. - An employee is retrieving parts from a robot on an HIMM machine.

Teamwork and Determination

Employee Discrimination Division

MIOSHA has many divisions with different functions, with all divisions working for a common goal of providing a safe and healthy working environment for Michigan workers. One of the smaller divisions which was created on July 7, 1977, is the Employee Discrimination Division (EDD). This division is responsible for investigating alleged claims of discrimination directed at employees because they exercised rights that are afforded them under MIOSHA.

Discrimination Complaints

Claims may involve retaliation against an employee or their representative because the employee refused to perform a job duty they believed to be life threatening or of an imminent danger. If the employee did not have a reasonable alternative and refused in good faith to expose him/herself to a dangerous condition, they would be protected against subsequent discrimination under MIOSHA.

Other complaints stem from discrimination against an employee because they testified in a MIOSHA proceeding; filed a complaint with a state or federal agency; complained to outside sources such as reporters; or made verbal complaints to other employees, management, or employee group representatives about unsafe or unhealthy working conditions.

EDD investigations also concern non-payment of wages or benefits because the employee or employee representative accompanied a MIOSHA officer during an inspection or investigation at the worksite. Complaints must be filed within 30 days of the event or occurrence, and must stem from a safety and/or health issue.

According to federal OSHA, Michigan's Employee Discrimination Division has the fastest resolution time in the nation. Complaints are normally settled within three months time.

Walt Industries v. Joseph Cosgrove

One case that clearly shows the total commitment of the team effort found within MIOSHA

is **Walt Industries v. Joseph Cosgrove**. It all started on April 2, 1991, when GI Safety Officer Charles Collier conducted a safety inspection at Walt Industries, Inc., in Taylor. During the course of the inspection, Collier interviewed several employees, including Joseph Cosgrove.

Safety Officer Collier provided the employees he interviewed with a brochure entitled "Your Rights and Responsibilities Under MIOSHA." This brochure provides an overview of the MIOSHA Act and is normally provided to employers and employees by MIOSHA representatives during the course of their investigations.

Shortly after Officer Collier's inspection, Cosgrove was directed to remove a guard from a buffing jack and operate the equipment without a guard. These machines are required to be guarded per the General Industry Standard Part: Polishing/Buffing. These machines are required to be guarded because of their high RPM and the danger of entanglement.

Cosgrove informed management that he would work, but he would not remove the guard and expose himself to the hazard. He cited the MIOSHA Employee Rights brochure, which states in part, "An employee shall not damage, move or remove any safety related item that is provided for use at the place of employment or do anything that would interfere with the use of that item by another person."

Cosgrove was terminated for insubordination on June 18, 1991. Cosgrove filed a MIOSHA discrimination complaint with EDD. Dana Girty, an investigator with EDD, investigated Cosgrove's allegations and concluded, based on the evidence she collected, that Section 65 of the MIOSHA Act was violated by his termination. Girty recommended he be reinstated with full seniority, back pay including interest, and all other remunerations he would be entitled to. EDD Chief Jim Brogan, reviewed and concurred with Girty's report.

Walt Industries retained counsel who filed an appeal of the agency's order to the CIS Office of Hearings. The case was assigned to Administrative Law Judge Joseph Chylinski who held a hearing on May 28, 1992. During the hearing, both parties produced witnesses and provided testimony with respect to their positions. The judge issued an order upholding the agency's findings.

The company next appealed the decision to the Wayne County Circuit Court. The Circuit Court upheld Judge Chylinski's order. The firm then appealed the case to the Michigan Court of Appeals. During these appeals, Assistant Attorney General Richard Gartner processed the agency's responses by filing numerous briefs in

support of their findings.

The Appellate Court remanded the case back to EDD to determine a specific amount of damages, credits the employer would be entitled to, and to decide whether

the agency could apply interest and at what amount. A second hearing was held before Judge Chylinski resulting in an order spelling out the credits the employer was entitled to, the amount of interest, and the amount of back pay.

Walt Industries appealed this order to Wayne County Circuit Court which affirmed Judge Chylinski's order. They then appealed the case to the Michigan Court of Appeals which also affirmed the issues. This was then appealed to the Michigan Supreme Court which declined to hear the matter, and clearly spelled out the agency's right to assess interest. Eight and one-half years later, the case was finally resolved before the Wayne County Circuit Court. It was determined that Cosgrove would receive two payments totaling \$40,000 including interest.

EDD Team Effort

This case clearly is not typical, but it does show the teamwork and dedication of personnel within and out of MIOSHA. The support given by CIS and BSR administration and personnel was outstanding. Special recognition is also given to:

■ **General Industry Safety Officer Charles Collier**, who provided Cosgrove with the brochure and explained his rights;

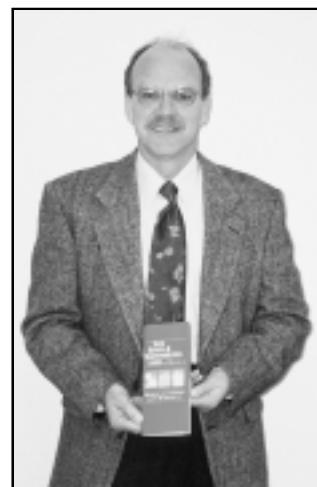
■ **Dana Girty, EDD Investigator**, who recommended pursuing the case;

■ **EDD Chief Jim Brogan** who issued the order and presented the case at the administrative hearing;

■ **Judge Joseph Chylinski, Office of Hearings**, who issued the decision on the merits of the case; and finally

■ **Assistant Attorney General Richard Gartner** who processed the appeals through the various courts.

This case shows the commitment and determination of all concerned to reach a just and equitable resolution.



GI Safety Officer Charles Collier with the MIOSHA brochure.



EDD Chief Jim Brogan and EDD Investigator Dana Girty holding a replica of the check to Joseph Cosgrove.

SET Awards

State Gives Safety and Health Awards

The **MIOSHA Safety Education & Training (SET) Division** recognizes the safety and health achievements of Michigan employers and employees through **SET Awards**, which are based on excellent safety and health performance. Four companies have recently earned SET Awards.

The **SET Plaque** is granted to employers who have achieved five or more years of outstanding MIOSHA record. The **SET Gold Award** is given to employers who have achieved two years of outstanding MIOSHA record. The **SET Silver Award** is issued to employers with one year of an outstanding MIOSHA record, and the **SET Bronze Award** recognizes employers who have made a measurable improvement.

SET also gives out two ergonomic awards. The **SET Ergonomic Innovation Award** is presented to companies for innovative ideas which have been implemented to reduce worker strain. The **SET Ergonomic Success Award** is awarded to employers who have instituted ergonomic improvements and have reduced traumatic injuries substantially.



SET Consultant Bernard Sznajder, SET Supervisor Mike Everett, Radar Vice-President Mark Zmyslowski, and Radar Purchasing Director Nancy

Radar Industries, Roseville

Radar Industries has been associated with the SET Division since 1995. SET has provided them with numerous consultation and training services, including assistance in producing a Safety Training Orientation videotape which is shown to all new hires. In February 2000, **SET Supervisor Mike Everett** and **SET Consultant Bernard Sznajder** presented the **SET Bronze Award** to the company. In 1998, they also received the SET Bronze Award.

Radar Industries is a world leader in stampings and assemblies, specializing in extrusions, hangers, engine mounts and other stampings. They produce stampings using state-of-the-art Minster presses and Catia 3D design software. Radar Industries is very proud to achieve this award because all employees worked hard to reduce their injury level. The company attributes a major part of the reductions to: employee training, ergonomic assessments and the continuous improvement ideas submitted by employees.

Kloeffler Industries, Inc., Marine City

Kloeffler Industries, Inc., was given a **SET Silver Award** by **SET Supervisor Mike Everett** and **SET Consultant Bernard Sznajder** for an outstanding safety record. They also received the **SET Plaque in 1998** for five years of outstanding MIOSHA records from 1993 to 1997. The company believes that these awards have a positive impact on employee morale, as well as insurance cost reduction.

Kloeffler Industries, founded in 1962, specializes in production welding services and fabricating assembly finishing. The company also does a substantial amount of research and development for the automotive industry on electric car technology. They are QS 9000 compliant and have approximately 40 employees. All employees have gone through a Hazard Recognition program along with the safety committee. This has enabled them to recognize and solve problems as they are found in work areas.



(Back) Ron Graham, Willie Kloeffler, Linda Dietlin, Bill Vandenabeele. (Front) Sally Emerich, Cindy Kloeffler, Irene Bibeau, Bill Kloeffler (Owner), SET Supervisor Mike Everett, SET Consultant Bernard Sznajder.

GKN Sinter Metals, Romulus

GKN Sinter Metals has received several safety honors this year. In 1999, they recorded zero lost-time accidents. In January 2000, they achieved **one million man-hours with no lost-time accidents**. In recognition of this major achievement, the company held a celebration and presented every employee with a company jacket.

At the celebration **SET Supervisor Mike Everett** and **SET Consultant Suellen Cook** presented the **SET Bronze Award** to the company, recognizing their significant safety achievements. At a recent GKN Corporate ceremony, GKN Sinter Metals received an award for Outstanding Safety Performance, as well as for Most Improved Facility. GKN Sinter Metals has more than 30 production facilities worldwide and has sales in excess of \$800 million and is the world's leading producer of powder metal components.



SET Consultant Suellen Cook, GKN HSE Manager Gary Giguere, GKN Plant Manager Glenn Johnson, SET Supervisor Mike Everett.



SET Consultant Bobby Stout, SET Supervisor Mike Everett, and Detroit Stoker Plant Manager Tom Rosen and Chief Union Steward Jeff

Detroit Stoker, Monroe

Detroit Stoker celebrated 100 years in business in 1999 and also celebrated one year without a lost-time accident, the first time in the company's history. Detroit Stoker received the **SET Silver Award** from **SET Supervisor Mike Everett** and **SET Consultant Bobby Stout**. The company held a celebration for employees on both the day and afternoon shifts.

They received this recognition for their safety diligence and the commitment of all workers. This is an especially significant achievement for a steelworking and metal fabricating firm. The company believes an accident-free rating not only protects employees, it lowers their workers' compensation rating. Detroit Stoker manufactures industrial grates and conveyor systems. The 75-member hourly work force is represented by United Steelworkers of America, Local 2511.

Safety Council for West Michigan - Safety & Health Expo 2000

The first occupational safety and health expo held in Grand Rapids in more than 20 years received favorable responses from attendees and vendors.

The **Safety & Health Expo 2000**, "Moving Safety in the Millennium," held January 19, 2000, at the Grand Rapids Delta Plex attracted about 1000 attendees. The 24 educational programs were well attended, leaving only standing room in a handful of the sessions.

"We are very excited by the response we received for the show," said **Executive Director Mary Gustas**, Safety Council for West Michigan. "People were very interested in the program topics we selected."

The EXPO featured programs on violence in the workplace, behavior-based safety, web-based safety training, automatic external defibrillator (AED's) and the new powered industrial truck standard, among other safety and health topics. As an organization that promotes and aids safety and health education, the safety council is able to recognize subjects about which safety and health professionals are seeking further information and training, and this, Gustas said, determined the schedule of programs.

More than 100 vendors displayed safety and health products and services, including ergonomic therapy, fire protection systems, environmental services and occupational health.

Interactive educational displays were also on the floor. Escape featured a fire escape situation trailer, which simulates the feeling of being trapped in a room filling with smoke, while educating participants in the poisoning effects of carbon dioxide.

For more information on the Safety Council for West Michigan, based in Kalamazoo, please call **616.344.6189**.



Staffer Jeannine Hemry at the Safety Council exhibit.

Wage & Hour

Prevailing Wage

In the fiscal year ending September 30, 1999, the Wage & Hour Division responded to 1,897 requests for prevailing wage rate schedules. A large majority of these requests were project related and originated from contracting agents.

Michigan Public Act 166 of 1965, Prevailing Wage on State Projects, defines "contracting agent" as schools or state institutions supported in whole or in part by state funds and authorized to enter into a contract for a state project or to perform a state project by the direct employment of labor.

The act requires the state prevailing wage rates to be paid when three conditions are met:

- 1) The project is sponsored or financed in whole or in part by the state;
- 2) The contract is entered into pursuant to advertisement and invitation to bid; and
- 3) The project involves the employment of construction mechanics.

Before advertising for bids on a state project, the act requires a contracting agent to obtain from Wage & Hour a determination of the prevailing wage rates for all classes of construction mechanics called for in the contract. The act states that this "schedule is to be made a part of the specifications for the work to be performed and shall be printed on the bidding forms where the work is to be done by contract."

To assist contracting agents in meeting this requirement of the act, the Wage & Hour Division maintains commercial rate schedules for each of Michigan's 83 counties. Each schedule contains more than 90 classifications of construction mechanics. If additional classifications are required for a project, the contracting agents must contact the division to identify what classification is needed and request a wage and fringe benefit rate determination.

When additional classifications are needed, contracting agents should allow time for the division to obtain the additional rate information. The law requires the division to establish rates based upon information from collective bargaining agreements of construction mechanic trades.

Contracting agents may obtain rate schedules from the division at 517.322.1825. The division will request the identity of the contracting agent, what county rates are requested for, and a brief project description.

Project-related rates are issued for 90 days. If a contract is not awarded or construction not undertaken within 90 days of the rate issue date, the contracting agent must request another rate schedule from the division.

Rates are also provided for general information to the public for a minimal fee. The division's website also contains general information on rate schedules.

Better Customer Service

As the Wage & Hour Division enters the new millennium we are preparing to look for ways to better serve our customers, as well as working more efficiently and effectively. The division staff has a wealth of experience and are extremely dedicated to what they do. Each year more than 7,000 complaints are received and investigated by the division.

During the next year we'll be reviewing our processes to see if there are areas where improvements can be made. One of the most important objectives will be to ensure our youth are not employed in hazardous occupations and that they are being employed within the limits of the laws and rules. Another top objective will be making certain that citizen complaints are processed in a timely and fair manner. For example, in January 1990, the division had a backlog of 1,536 cases more than 90 days old. In January 2000, the backlog was only 322 cases. In fact, last year 70 percent of our cases were resolved within 90 days. The division will continue to strive to reduce the backlog of cases without compromising the quality of the investigations.

As part of our inspection and investigation process there will be an emphasis placed on training and education of wage and hour standards for employers throughout the state. Every contact that a division representative has with an employer or an employee is an opportunity to relay information for improved compliance. We believe that a major part of regulation includes providing assistance and training to our customers. We will also be providing ongoing training to our staff to ensure that our services are consistent and conducted within the scope of the laws and rules we enforce, as well as division policies. We are excited about the opportunities that are in front of us and look forward to being able to continue to improve our services.

News

New Chief



William M. Strong was appointed Chief of the Wage and Hour Division of the Bureau of Safety and Regulation, effective January 24, 2000. Bill joined state government in 1988.

In this position, Bill is responsible for overseeing the regulation and enforcement of the Payment of Wages and Fringe Benefits Act, the Michigan Minimum Wage Law, the Youth Employment Standards Act and the Prevailing Wage Act. To meet the mission of ensuring that there is fair, effective and efficient administration of laws which protect the wages and fringe benefits of Michigan's workers, as well as the safe and legal employment of minors, Bill will manage 38 employees, including 21 investigators and senior investigators throughout the state.

His previous employment experience includes serving as a regulatory investigator and manager with the Michigan Lottery and as a departmental analyst with the Michigan State Police. Bill has been involved in numerous statewide projects that include training, regulation and enforcement. Bill is a graduate of the University of Michigan and Western Michigan University with Bachelor's and Master's degrees in Public Administration.

For More Information

Wage & Hour Division
517.322.1825

Website:

www.cis.state.mi.us/bsr/divisions/wh/home.htm

Education & Training Calendar

Date	Course Location	MIOSHA Trainer Contact	Phone
May			
4	Electrical Safety, Machine Guarding & Lockout Adrian	Linda Long Jennifer Ramos	(517) 265-0166
10	Safety Seminar for Fireworks in Municipalities Bay City	Lee Jay Kueppers Kay Wanger	(517) 892-8601
10, 17, 24	Safety Administrator Course Grand Rapids	Jerry Swift Penny Mollica	(616) 698-1167
11	Elements of Ergonomics Shelby Township	Lee Jay Kueppers Reid Sheeley	(810) 752-2091
15, 16, 17	Safety Solutions III Southfield	Linda Long Ed Ratzenberger	(248) 557-7010
17, 18	2-Day Mechanical Power Press Clarkston	Richard Zdeb Peggy Desrosier	(248) 620-2534
18	Ergonomics & Your Safety & Health Program Clinton Township	Suellen Cook Staff	(810) 263-2410
23	Fundamentals of Safety Livonia	Suellen Cook Diane Burns	(734) 462-4448
June			
5, 12, 19,	Safety Administrator Course Southfield	Karen Odell Pat Murphy	(248) 353-4500
6	Supervisors' Role In Safety Troy	Richard Zdeb Jeanetta Miller	(248) 689-8282
7	Power Press Safety Port Huron	Bernard Sznajder Patrick McNelis	(810) 985-1865
13	MIOSHA Recordkeeping Seminar Canton	Suellen Cook Jacqueline Schank	(734) 464-9964

NEW MANUFACTURERS' GUIDEBOOK & WORKSHOPS

The **Michigan Department of Environmental Quality, Environmental Assistance Division** and the **Michigan Department of Consumer and Industry Services, Bureau of Safety and Regulation** are hosting a statewide series of workshops to introduce the new **"Michigan Manufacturers' Guide to Environmental and Safety and Health Regulations."** Written by program specialists from the hosting departments, this new guidebook is packed full of easy-to-read discussions about state and federal environmental rules and MIOSHA safety and health programs that affect Michigan manufacturers.

The guidebook opens with a self-assessment checklist that quickly and easily leads the reader to applicable chapters of the guide. Each chapter has a concise reference section that tells where to go for additional help and lists the corresponding telephone numbers, websites, and publication documents.

Anyone who is responsible for keeping workers safe, protecting the environment, or operating a profitable business will benefit by using the **"Michigan Manufacturers' Guide to Environmental and Safety and Health Regulations."**

Eight workshops designed to study the new guide and teach how to use it are being held across the state. Registration begins at 7:00 a.m. Each workshop starts at 8:00 a.m. and runs until 3:30 p.m.

The \$70 registration fee reflects a reduced rate of \$20 for the guidebook and includes continental breakfast, lunch, workshop materials, and one copy of the regulatory guide. Additional guidebooks may be purchased for \$25. To register for the workshop or obtain additional information, call the **Environmental Assistance Center** at **800.662.9278** or visit the **DEQ website** at www.deq.state.mi.us/ead/eosect/workshop.html.

Treetops Sylvan Resort

Ramada Inn

Holiday Inn Gateway Centre

Crowne Plaza

Fetzer Center

Grand Rapids Airport Hilton

Double Tree Hotel

Van Dyke Hotel & Conf. Center

Construction Safety Standards Commission

Labor

Mr. Daniel Corbat

Mr. Carl Davis**

Mr. Andrew Lang

Mr. Martin Ross

Management

Mr. Thomas Hansen

Mr. Charles Gatecliff

Ms. Cheryl Hughes

Mr. Peter Strazdas*

Public Member

Mr. Kris Mattila

General Industry Safety Standards Commission

Labor

Mr. James Baker

Mr. Tycho Fredericks

Mr. Michael D. Koehs*

Mr. John Pettinga

Management

Mr. George A. Reamer

Mr. Timothy J. Koury**

Ms. Doris Morgan

Mr. Andy C. Brown

Public Member

Ms. Geri Johnson

Occupational Health Standards Commission

Labor

Dr. G. Robert DeYoung**

Ms. Cynthia Holland

Capt. Michael McCabe

Ms. Margaret Vissman

Management

Mr. Robert DeBruyn

Mr. Michael Lucas

Mr. Richard Olson

Mr. Douglas Williams*

Public Member

Dr. Glen Chambers

**Chair **Vice Chair*

Standards Promulgation

The mission of the MIOSHA Standards Division is to assist in promulgating MIOSHA standards, to provide standards information and comparisons to federal OSHA, and to distribute standards upon request. To promulgate a standard means the process by which rules are officially created, revised or removed.

The promulgation of occupational safety and health standards in the State of Michigan places the responsibility upon many individuals who are dedicated to serving the public in the area of workplace safety and health:

■ **Safety and Health Commissioners** - consisting of representatives of management, labor, and the public. The three commissions are the General Industry Safety Standards Commission, the Construction Safety Standards Commission and the Occupational Health Standards Commission. All commission members are appointed by the Governor.

■ **Advisory Committee Members** - who are knowledgeable and have experience in the subject matter. Advisory committee members are appointed by the appropriate commission.

■ **MIOSHA Standards Division Staff** - who work with the three commissions and the advisory committees in the development, promulgation, and amendment of the standards, and process the rules through the procedural steps that are required by the Office of Regulatory Reform, following the Administrative Procedures Act, and Michigan Occupational Safety and Health Act No 154 of the Public Acts of 1974, as amended.

The state develops and promulgates standards: (a) for which there is no comparable federal OSHA standard, (b) by reference, if identical to a federal standard, or (c) rules which are "as effective as" a federal OSHA standard.

Currently, there are 482 business, employee and citizen representatives serving on Advisory Committees. All commission and advisory committee meetings and scheduled public hearings are open to public attendance.

One example of the process for addressing rule changes is Part 62 Plastic Molding. The General Industry Safety Standards Commission reviewed Safety Standard Part 62 Plastic Molding at the request of the plastics industry to address lockout procedures for Horizontal Injection Mold Machines during mold changes.

The Part 62 Advisory Committee met over a period of time, and presented proposed rules that give a safe alternative to standard lockout procedures specifically for this operation. The General Industry Safety Standards Commission then reviewed the proposed changes, held public hearings, and amended Part 62.

The dedication of the commission members, the advisory committee members, the bureau staff, and the plastics industry resulted in rules changes that provide a safe working environment, while addressing production concerns.



Tim Koury, BSR Commissioner and Corporate Safety Director, Blue Water Plastics, and BSR Deputy Director Doug Kalinowski discuss the Part 62 Amendment.

Russell Herlache, Chair
Douglas Sten, Vice Chair
Eva Hatt
Jim Gordon
Douglas Kalinowski
Chuck Lorish
Dave Misovich
Robert Monteith
Connie Munsch
Marsha Parrott-Boyle
Dave Saksewski
Martha Yoder

Status of Michigan Occupational Safety & Health Standards

Occupational Safety Standards

General Industry

Part 06.	Fire Exits	Draft at LSB for formal review
Part 18.	Overhead and Gantry Cranes	At Advisory Committee
Part 19.	Crawler, Locomotives, Truck Cranes	Approved by Commission for review
Part 20.	Underhung and Monorail Cranes	Approved by Commission for review
Part 21.	Powered Industrial Trucks	LSB formal certification
Part 56.	Storage and Handling of Liquefied Petroleum Gases	Draft at LSB for formal review
Part 58.	Vehicle Mounted Elevated & Rotating Platforms	Approved by Commission for review
Part 62.	Plastics	Final, effective 2/8/00
Part 69.	Compressed Gases	RFR approved
Part 74.	Fire Fighting/Amendment #1	Final, effective 1/4/00
Part 74.	Fire Fighting/Amendment #2	At Advisory Committee
Part 78.	Storage & Handling of Anhydrous Ammonia	Draft at LSB for formal review
Part 79.	Diving Operations	At Advisory Committee
Part 93.	Air-Receivers	Draft at LSB for informal review

Construction

Part 10.	Lifting & Digging	Draft at LSB for informal review
Part 18.	Fire Protection & Prevention	Approved by Commission for review
Part 22.	Signs, Signals, Tags & Barricades	At Advisory Committee
Part 26.	Steel and Precast Erection	At Advisory Committee
Part 30.	Telecommunications	Approved by Commission for review
Part 31.	Diving Operations	At Advisory Committee
Part 32.	Aerial Work Platforms	LSB formal certification

Occupational Health Standards

General Industry

Acrylonitrile	Final, effective 2/22/00
Asbestos for General Industry	Draft at LSB for informal review
Ethylene Oxide	Final, effective 2/22/00
Hazardous Waste Operations and Emergency Response (HAZWOPER)	Final, effective 2/22/00
Inorganic Arsenic	Final, effective 1/19/00
Lead	Draft at LSB for informal review
Personal Protective Equipment	Draft at LSB for informal review
Powered Industrial Trucks R3225	Draft at LSB for informal review
Respirators in Dangerous Atmospheres	Draft at LSB for informal review
Vinyl Chloride	Draft at LSB for formal review

Construction

Noise in Construction R6260	Draft at LSB for informal review
Personal Protective Equipment for Construction R6260	Draft at LSB for informal review

Administrative Rules

Part 11.	Recording of Occupational Illnesses and Injuries	Draft at LSB for formal review
Part 12.	Variances	Draft at LSB for formal review

The MIOSHA Standards Division assists in the promulgation of Michigan occupational safety and health standards. To receive a copy of the MIOSHA Standards Index (updated November 1999) or for single copies and sets of safety and health standards, please contact the Standards Division at 517.322.1845.

Request for Rulemaking
 ORR Office of Regulatory Reform
 LSB Legislative Services Bureau
 JCAR Joint Committee on Administrative Rules

Variances

Published April 28, 2000

Following are requests for variances and variances granted from occupational safety standards in accordance with rules of the Department of Consumer & Industry Services, Part 12, Variances (R408.22201 to 408.22251).

Variances Requested Construction

Part number and rule number from which variance is requested

Part 8 - Material Handling: Rule R408.40833, Rule 833(1)

Summary of employer's request for variance

To allow employer to tandem lift structural steel members under controlled conditions and with stipulations.

Name and address of employer

American Erectors, Inc.

Location for which variance is requested

U of M Hospital Emergency Room, Ann Arbor
44th District Court, Royal Oak

Name and address of employer

Assemblers, Inc.

Location for which variance is requested

Central Michigan Univ. Park Library, Mt. Pleasant

Name and address of employer

Cadillac Iron, Inc.

Location for which variance is requested

Lawrence Technological University, Southfield
Dexter High School, Dexter

Name and address of employer

Douglas Steel Erection Company

Location for which variance is requested

735 East Michigan Ave., Lansing

Name and address of employer

McGuire Steel Erection, Inc.

Location for which variance is requested

Center for Creative Studies, Detroit
Christ The King Catholic Center, Ann Arbor
Lighthouse of Oakland Co., Pontiac

Name and address of employer

Pioneer, Inc.

Location for which variance is requested

East Paris Medical, Grand Rapids

Name and address of employer

Redinger Steel Erectors, Inc.

Location for which variance is requested

Jacobsons, Okemos

Name and address of employer

Sova Steel, Inc.

Location for which variance is requested

Wayne State U, School of Pharmacy, Detroit
Greater Grace Temple, Detroit

Part number and rule number from which variance is requested

Part 11 - Fixed and Portable Ladders: Rule R408.41113(1), Rule 1113(1)

Summary of employer's request for variance

Employer has requested extension and modification of previously issued experimental variance to allow an employee to be hoisted by the hoist line to access a tower work station in accordance with certain stipulations.

Name and address of employer

Grant Tower, Inc.

Location for which variance is requested

Various locations throughout the State as reported in advance by employer

Part number and rule number from which variance is requested

Part 13 - Mobile Equipment: R408.41301, Ref. 1926.1000(a)

Summary of employer's request for variance

To allow use of a Caterpillar Backhoe 446 tractor with backhoe attachment, Serial Number 6XF00603 to work under overhead conveyor obstructions in an assembly plant to dig shallow foundation pad excavations without the use of rollover equipment providing certain stipulations are adhered to.

Name and address of employer

Aristeo Construction Company

Location for which variance is requested

Sterling Heights Assembly Plant, Sterling Hts.

Part number and rule number from which variance is requested

Part 14 - Tunnels, shafts, Caissons and Cofferdams: R408.41482, Rule 1482(g)

Summary of employer's request for variance

To allow employees to remain in the caisson under controlled conditions when material is being hoisted from the caisson and according to certain stipulations

Name and address of employer

Dan's Excavating, Inc.

Location for which variance is requested

77' diameter stormwater Pump Station, Romulus

Part number and rule number from which variance is requested

Part 32 - Aerial Lift Platforms R408.43209, rule 3209(8)(b) and R408.43209, Rule 3209(g)

Summary of employer's request for variance

To allow employer to firmly secure a scaffold plank to the top of the intermediate rail of the guardrail system of an aerial lift for limited use as a work platform provided certain stipulations are adhered to.

Name and address of employer

Applegate, Inc.

Location for which variance is requested

Northwest Midfield Terminal, Romulus

Variances Granted Construction

Part number and rule number from which variance is requested

Part 8 - Material Handling: Rule R408.40833, Rule 833(1)

Summary of employer's request for variance

To allow employer to tandem lift structural steel members under controlled conditions and with stipulations.

Name and address of employer

American Erectors, Inc.

Location for which variance is requested

Providence Hospital, Southfield

Name and address of employer

Bristol Steel & Conveyor Corp.

Location for which variance is requested

GM Lansing Assembly Plant, Lansing

Name and address of employer

Broad, Vogt & Conant

Location for which variance is requested

Chrysler-Warren Truck Assembly, Warren

Name and address of employer

Johnson Steel Fabrication, Inc.

Location for which variance is requested

Genesee County Courthouse Annex, Flint
Professional Studies & Classroom Bldg., Flint

Name and address of employer

McGuire Steel Erection, Inc

Location for which variance is requested

Consolidated Courts Facility, Lansing
Lapeer County Medical, Lapeer
Rochester Adams High School, Rochester Hills
Jac Products, Saline
Beck West - Bldg. A & B, Wixom
American Yazaki Addition, Canton
Cambridge Court Office Bldg, Auburn Hills

Name and address of employer

Midwest Steel, Inc.

Location for which variance is requested

Parke Davis Pharmacy Building Project, Ann Arbor
Daimler Chrysler, Warren Truck Plant, Warren

Name and address of employer

Pioneer Inc.

Location for which variance is requested

Kent County Courthouse, Grand Rapids

Name and address of employer

Whitmore Steel

Location for which variance is requested

Ford Michigan Truck Plant, Wayne

Part number and rule number from which variance is requested

Part 12 - Scaffolds and Scaffold Platforms: R408.41221, Rule 1221(1)(c)

Summary of employer's request for variance

To allow employer to use stilts at a maximum height of 24 inches under controlled conditions and according to certain stipulations.

Name and address of employer

Moyle Construction, Inc.

Location for which variance is requested

The Bluffs-Houghton, Houghton

Variances Requested General Industry

Part number and rule number from which variance is requested

Part 63 - Pulp, Paper, and Paperboard Mills: Rule 6384(2)

Summary of employer's request for variance

Employer has requested to provide additional guarding on and control access to the blade of a roll splitter, rather than leave it in the down position when not in use.

Name and address of employer

Crown Vantage Paper Company

Location for which variance is requested

1000 N. Huron St., Ypsilanti

Part number and rule number from which variance is requested

Part 63 - Pulp, Paper, and Paperboard Mills: Rule 6384(1)

Summary of employer's request for variance

The firm has requested to use 2 hand constant pressure controls in lieu of required interlocked barrier on a roll splitter machine.

Name and address of employer

Crown Vantage Paper Company

Location for which variance is requested

1000 N. Huron St., Ypsilanti

Part number and rule number from which variance is requested

Part 1 - General Provisions: Rule 36(1)

Summary of employer's request for variance

Employer has requested to use high pressure air guns under controlled conditions.

Name and address of employer

Douglas Steel Fabricating Corporation

Location for which variance is requested

1312 S. Waverly Road, Lansing

Construction Safety

Only about four percent of Michigan's workforce is employed in construction. Construction fatalities, however, accounted for more than 40 percent of all MIOSHA program-related fatal workplace accidents over the last three years.

1999 Construction Fatalities by Major Cause

Fall	10
Caught Between	11
(Cave-In - 4)	
Struck By	3
(Struck By Traffic - 1)	
Electrocution	6
Other	1
(Burns - 1)	
Total	31

An Early Start on the 2000 Season?

As I finish writing this article in mid-March, I am alarmed by an early indication of a potentially deadly trenching season ahead. The Construction Safety Division is investigating a recent cave-in incident.

A worker was injured when the trench walls collapsed on him. It was a miracle that he was not killed but he remains in the hospital a week after the incident with several broken bones and severe internal injuries.

Please remember, hazards in the construction industry can be addressed through a comprehensive and actively implemented accident prevention program.

**Construction Safety
Division**
517.322.1856

Dangerous Trenches

Cont. from Page 1

Underground Work Can be Done Safely

Is trenching work inherently unsafe? No, if adequate precautions are taken no one need die or suffer serious injuries from a cave-in. Trench sides can be supported by shoring, a trench box, or can be sloped back to an angle appropriate to the type of soil encountered to eliminate the possibility of a large trench-side collapse. Indeed, the death toll could be all but eliminated if current MIOSHA standards were followed.

Most contractors performing underground work devote considerable time and resources to make their trenches safe. If this were not so, the toll of death and injury could be many times greater.

Perhaps the question to ask is, "Why aren't all trenches made safe if it is possible to do so?" There are many reasons but let's begin by acknowledging the MIOSHA standard. Part 9 of the Construction Safety Standards requires that all excavation and trench sides must be sloped back sufficiently or supported before they are occupied by employees. Training on the recognition and avoidance of excavation and other hazards is required by Part 1, General Rules MIOSHA standard. An article by SET Consultant Tom Swindlehurst detailing the applicability of excavation standards and training appears on page five of this issue.

Looming large among the reasons hazardous trenches may still exist in this safety-conscious, modern era, is simply the cost. Excavation and trench safety can be very expensive. Trench box use and shoring installation slow down production and in some cases might result in the time required to complete an underground project to double or more. Sloping the excavation sides out to a safe angle can be even more expensive. In most cases, excavated spoil must be hauled away to distant fill sites and the voluminous trench backfilled with sand which must be purchased, trucked to the site, and compacted. Sloping the trench sides out to a safe angle can

also mean removing and replacing five times more pavement area, another considerable cost.

Often, unsafe trenches exist because of the lack of a trained, qualified person. The MIOSHA standard requires an ongoing inspection of an excavation or trench shall be made by a qualified person. The qualified person described in the standard is trained to recognize soil types, understand the characteristic hazards of each one, and design shoring and/or soil sloping as dictated by the unique site conditions. The qualified person also monitors the progress of the work to identify hazardous conditions as they develop.

Sometimes for smaller, less experienced contractors the problem is awareness. Because most soils can support themselves temporarily while a trench is open to install a pipe, inexperienced and uninformed workers may not realize the dangers to which they are exposed. Some clay soils are known to support themselves so well that a mile of vertical-sided trench can be excavated with not even a shovel of soil caving off the sides and then, suddenly, a thousand pounds or more can cave in and crush an unsuspecting worker.

The Real Tragedy

Although the numbers of cave-in fatalities have been at lower levels on average during the six to eight years previous to 1999, last year's trend is alarming and cannot be ignored. Enforcement of the standards that apply to excavation and trenching workplaces will be receiving increased attention consistent with the MIOSHA Strategic Plan as the 2000 construction season gets underway. Each employer in the underground industry must pursue the goal of 100 percent compliance with the MIOSHA standards and zero cave-in injuries and fatalities.

As tragic as the 1999 deaths were, the real tragedy would be to repeat history. The real tragedy would be to repeat the agony suffered by the survivors of the workers lost in trenches last year. The real tragedy would be to some day count up eighty-eight more of them. Even one more is too many. ■

Wage Hour Digest

Did you know there is a research tool for the **Michigan Payment of Wages and Fringe Benefits Act**, 1978 PA 390, as amended (Act 390)?

The **Wage Hour Digest**, published in 1997 under copyright by the State Administrative Board, covers administrative law judge and court decisions current to February 2000. The Digest includes:

- 1,570 Digest Entries,
- Subject Index,
- Table of Cases, and
- General Entry Index.

This Digest is an indispensable research tool for anyone involved with Act 390 litigation. An update will be issued in early 2001 to include cases from 2000.

The price of the Digest is \$175 with yearly updates at 25 cents per page. Please contact **Terri Schrauben**, Bureau of Hearings, Division of Employment and Industry Services, **517.322.1709**, to obtain a copy.

Preventing Needlestick Injuries

Cont. from Page 4

■ Hollow-bore needles (the type of needle used for giving injections or drawing blood) are the cause of injury in 68.5 percent of cases.

The National Center for Infectious Diseases (NCID) developed the National Surveillance System for Hospital Health Care Workers (NaSH) to systematically collect information important to prevent occupational exposures and infections among healthcare workers. Data reported by hospitals participating in NaSH between June 1995 and July 1999 also show hollow-bore needles as the primary sharp device contributing to sharps injuries.

OSHA Request for Information

On September 9, 1998, OSHA published a Request for Information (RFI) on engineering and work practice controls used to eliminate or minimize the risk of occupational exposure to BBP due to percutaneous injuries from contaminated sharps. Comments were provided by more than 300 healthcare facilities. Also responding were individual workers, researchers, unions, educational institutions, professional and industry associations, and manufacturers of medical devices.

From the comments OSHA learned:

■ Increased costs and staff resistance to change are the most frequently reported obstacles to adopting safer medical devices.

■ Use of safer devices appears to be increasing in limited applications.

■ Responses indicate that safer medical devices are an effective and feasible method of hazard control.

Information gathered from this RFI was part of the justification for the new OSHA compliance directive issued in 1999. In its review of the comments, OSHA found that a variety of safer devices exist that can protect workers from needlestick injuries, however, they are not being used widely enough to substantially reduce the hundreds of thousands of injuries each year.

Needlestick Legislation

On September 30, 1998, Governor Pete Wilson signed legislation that made California the first state in the nation to require the use of safer needles. The legislation, sponsored by Assemblywoman Carole Migden, (D) San Francisco, followed a San Francisco Chronicle news series titled, "Deadly Needles" that reported more than one million needle sticks every year affecting thousands of nurses, doctors, technicians and other health care workers.

Since California, the states of Tennessee, Maryland, Texas, and New Jersey have passed some form of needlestick prevention legislation. Twenty-six other states, including Michigan, have house or senate bills pending.

In Michigan, **Rep. Dave Woodward** (D) sponsored house bill no. 4621 and **Rep. Paul DeWeese** (R) introduced house bill no. 4780. The bills are expected to be considered by the House Health Policy Committee in April. The bills specify seven revisions to the current bloodborne infectious diseases standard (R325.70001 et seq.) to be accomplished by the promulgation of an emergency standard and a final standard.

The proposed revisions are as follows:

■ A revised definition of "engineering controls."

■ A new definition of "engineered sharps injury protection."

■ The establishment of evaluation committees to conduct evaluations of needleless systems and sharps with engineered sharps injury protections.

■ The requirement to include engineered sharps injury protection as engineering or work practice controls.

■ The requirement that written control plans include a procedure for identifying and selecting sharps prevention technology.

■ The requirement that written control plans be reviewed and updated annually to reflect progress in implementing sharps prevention technology.

■ The creation of a sharps injury log for recording specified information related to an exposure incident.

Conclusion

Federal OSHA's November 1999 announcement to take steps to amend the B

rule by placing needlesticks on the regulatory agenda stemmed in part from the record summary report of the 1998 RFI. Stakeholder meetings are planned for summer 2000. In lieu of an amended standard, OSHA believes that needlestick concerns can and should be addressed by the more effective 1999 compliance directive, as well as increased enforcement.

Safer needle devices can protect employees from occupational exposure to blood and other potentially infectious materials. Where engineering controls will reduce employee exposure either by removing, eliminating or isolating the hazard, they must be used. Safer needle devices can protect health care workers from exposure to life-threatening diseases by preventing needlestick injuries. ■

Website references:

The Food and Drug Administration
<http://www.fda.gov/cdrh/safety>

The Exposure Prevention Information Network (EPINet)
<http://www.med.virginia.edu/medcntr/centers/epinet>

National Surveillance System for Hospital Health Care Workers (NaSH)
<http://www.cdc.gov/ncidod>

Federal OSHA
<http://www.osha.gov>

Threat Assessment

Cont. from Page 3

ceived level of risk, and justification for what-ever decisions were made in the management of the incident.

The task of investigating the threat may be assigned to representatives of any of the following classifications: health and safety, human resources, security, labor relations, employee assistance program (EAP), occupational health, legal, risk management, or a combination of the above representatives working in unison.

The investigation is a process of obtaining accurate information from interviews, documents and public records which, when evaluated in an entire context, can provide a basis to assess the level of potential risk of the employee making the threat. By compiling information from numerous sources, a more accurate picture of potential violence can be established.

Sources within the company to interview are those people knowledgeable about the incident and those who have observed the subject over time. Such interviews will help determine whether the reported threatening behavior was merely an isolated incident or whether the behavior of concern has been increasing in intensity and frequency. Interviews should be conducted with the target of the threat, witnesses, current and previous supervisors who have observed the subject's behavior, co-workers who may have witnessed the incident or other behaviors listed above, and customers or contractors who may also have observed inappropriate and/or threatening behavior.

The questions to be asked during interviews should be those which document behaviors by the subject that made others feel "uncomfortable." Specifically, the company needs to learn about: current and previous threats; whether or not the subject has engaged in any bizarre gestures or communications; references to weapons, other acts of violence, or references to perpetrators of workplace violence; threatening communications via emails, voicemails, letters, etc. Indications of behaviors that were perceived as intimidating should also be documented, (e.g. non-verbal gestures, staring, glaring, destruction of property/objects, or vandalism).

The written results of these interviews should then be assessed for their veracity, accuracy and recency. Obtain-

ing signed statements from witnesses will be very important, especially if disciplinary actions or litigation may result.

Other sources of information that can be helpful in assessing threatening behavior may be found by reviewing the history of grievance and disciplinary actions in the personnel file, checking public records regarding criminal convictions, legal handgun ownership, and driving records. Recurring patterns of threats, escalating behaviors of intimidation and severity of threats are important indicators of risk.

Threats which are most dangerous are those in which the subject has made a specific threat of harm to an identifiable target, and has stated a plan, means, time and place to carry out the threatened harm. In situations of this level of risk, the employer should consider calling law enforcement or on-site security *immediately* so as to insure the safety of the workplace, and then proceed with the investigation of additional information of risk.

Resolution of the Incident

After all pertinent information has been collected, the company will then interview the subject in a safe and non-threatening manner. Such an interview should be a "good faith" effort to give the subject the opportunity to tell his or her side of the event. The interview should not be confrontational, but an occasion to open lines of communication so that there could be an amicable resolution of the incident if possible.

In setting the stage for this interview, the target should not be present, since this may result in non-productive exchanges. Having two interviewers should also be considered since one person can conduct the interview while the other can take notes, act as a witness to what was said, and also "pick-up" on things the other interviewer might miss. It may be advisable to notify security, in case the subject reacts in a manner that could endanger the safety of others.

There are a host of possible outcomes ranging from "no problem- just a big misunderstanding" to coaching, training, warning, suspension, treatment, evaluation by an external expert, rehabilitation, criminal prosecution, disciplinary action or even termination of employment.

In the event that a decision for suspension or termination is made, the employer should retrieve the employee's keys, ID badges, company credit cards and cancel the employee's access codes to computer, email and voicemail systems. Security alerts should be instituted at the work locations where the target works and at access points to company premises.

The termination should be conducted in a sensitive, respectful manner so that it does not result in the employee being unnecessarily humiliated or feeling de-valued. Arrangements for the final paycheck, explanation of available ben-

efits, Cobra, severance packages and letters of reference should be discussed so that the employee will clearly understand all separation conditions.

In the investigation and assessment of the credibility of threats, employers must have a clear understanding of the dynamics and issues of workplace violence and have the resources and expertise, either in-house or with predefined external relationships, to respond quickly to prevent violence from occurring at their place of business.

The employer must also recognize and understand the fine balance between protecting the legitimate rights of the individual versus the rights of everyone else in the workplace to feel safe and free from harm. It should also be noted that under the MIOSHA General Duty Clause 11(a), it is the employer's responsibility to maintain a safe work environment.

By knowing what information is important in conducting a risk analysis, by verifying reports obtained, by treating all employees with respect and fairness, the threat assessment and management process can occur in a professional manner resulting in a successful outcome.

This is the second article of a three-part series. The first article focused on workplace violence, and the final article will cover crisis intervention.

Marilyn Knight, M.S.W., is the Director of the Center for Workplace Violence Prevention.

SET Grants FY 2000

The application process began in mid-March 2000 for the next fiscal year.

The SET Grant program funds non-profit organizations for the purpose of providing safety and health training and/or limited research.

The program is directed at small to medium-sized companies.

Contact **Jerry Zimmerman** at **517.322.1865**, if you are interested and would like to be added to the mailing list.

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Website: www.cis.state.mi.us/bsr

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Bureau of Safety & Regulation
Director: Douglas R. Earle

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